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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/705,007	11/02/2000	Shlomo Assa	LASER1140-2	4811

7590

02/13/2002

John J. Gagel
FISH & RICHARDSON P.C.
225 Franklin Street
Boston, MA 02110-2804

EXAMINER

PHAM, HAI CHI

ART UNIT

PAPER NUMBER

2861

DATE MAILED: 02/13/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/705,007

Applicant(s)

ASSA ET AL.

Examiner

Hai C Pham

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-36 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-36 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). ____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____ 6) ☐ Other: ____

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities:
 - Page 1, lines 9 and 10, the blank spaces should be filled with appropriate information;
 - Page 17, line 11, "micrometers" should read --micromotors--.

Appropriate correction is required. The Applicants are advised to carefully review the specification and to subsequently correct any other typographical errors.

Claim Objections

2. The following claims are objected to because of the following informalities:
 - Claim 2, line 1, "printing" should read --printing the code according to--;
 - Claim 3, line 1, "printing the corrected" should read --printing the code according to the corrected data set--;
 - Claim 5, line 3, "a product" should read --*the* product-- since it refers back to a previously defined limitation;
 - Claim 6, line 3, "a product" should read --*the* product--;
line 7, "a product" should read --*the* product--;
 - Claim 9, line 3, "were" should read --was--;
 - Claim 11, line 1, "printing" should read --printing the code according to--;

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- Claim 12, line 1, "printing the corrected" should read --printing the code according to the corrected data set--;
- Claim 14, line 3, "a product" should read --*the* product--;
- Claim 19, line 2, "a product" should read --*the* product--;
- Claim 25, line 3, "a product" should read --*the* product--;
- Claim 26, line 3, "a product" should read --*the* product--;
line 7, "a product" should read --*the* product--.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 10:

- The following limitation "electronics for printing the code" at line 8 appears to be ambiguous in that it is not known how to differentiate the "electronics" from the "laser" (line 2,) which has been defined as a means for printing the code.
However, it will be assumed that either a laser driver driving the laser source or an optical scanning system is being claimed for performing the printing of the code until the Applicants say otherwise.

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Claim 11:

- The method claim 11 improperly claims dependency from the apparatus claim 10.

Claim 12:

- The method claim 12 improperly claims dependency from the apparatus claim 10.

Claim 15:

- The following limitation “a laser configured to produce a printing beam for printing the code on a product” at lines 2-3 appears to be a repetitive limitation, since the laser has already been claimed in the corresponding independent claim 10.

Claim 19:

- The limitation “*the order*” at line 5 lacks antecedent basis.

Claim 20:

- The limitation “*the area*” at line 1 lacks antecedent basis.

Claim 27:

- The limitation “*the order*” at line 5 lacks antecedent basis.

Claim 28:

- The limitation “*the area*” at line 1 lacks antecedent basis.

Claim 34:

- The limitation “*the density*” at line 5 lacks antecedent basis.

Claim 35:

- The limitation “*the amount of time*” at line 2 lacks antecedent basis.

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Claim 36:

- The following limitation “electronics for printing pixels” at line 5 appears to be ambiguous in that it is not known how to differentiate the “electronics” from the “laser” (line 2,) which has been defined as a means for printing the code.

However, it will be assumed that either a laser driver driving the laser source or an optical scanning system is being claimed for performing the printing of the code until the Applicants say otherwise.

Claims 13, 14, 16-18, 21-26, 29-32 are dependent from claims 10, 19, 20, 27 above, and are therefore indefinite.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

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6. Claims 1-33, 36 are rejected under 35 U.S.C. 102(e) as being anticipated by Hasebe et al. (U.S. 6,061,081.)

Hasebe et al. discloses a scan type laser marking device and a method for printing, which comprises a laser (1) for printing an alphanumeric code (mark M being a character or a graphic form) on a product (workpiece W or object 181) moving in a direction (direction B,) the code being constructed from a plurality of pixels (the graphic form or mark having a plurality of dots) (col. 2, lines 47-62,) and electronics (drive power source circuit 2 along with the galvanometer mirrors 3a, 3b) for printing the pixels on the product in a two dimensional trace (by two-dimensionally scanning the laser beam, Fig. 10) so as to form the code on the product. Hasebe et al. further teaches the method for printing including generating a corrected data set (position correcting data) indicating the position that each pixel would occupy if each pixel was moved at the velocity of the product until the pixel is printed, and printing the code according to the corrected data set.

With regard to claims 2, 3, 5, 7-9, 11, 12, 14, 16-18, 23, 25, 31, Hasebe et al. also teaches printing the code according to the corrected data set including printing a two-dimensional trace or pixels or spots (col. 3, lines 24-27,) the laser being mounted in a housing (180, Fig. 7,) which includes an optics assembly (condenser lens 4) to focus a printing beam produced by the laser onto the product positioned adjacent the housing, the first data set indicating the positions of the spots, and the corrected data set indicating the positions that each spot would occupy if each spot was moved along with the product until the spot was printed (Figs. 3A-3D, 10.)

With regard to claims 4, 13, 19, 22, 24, 30, 32, Hasebe et al. teaches prioritizing the order in which the pixels are printed such that the pixels are printed in a direction, which is opposite to the direction which the product moves (Fig. 4A,) the pixels being arranged in a plurality of columns and prioritizing the order which the pixels are printed including prioritizing each of the columns (Figs. 4B, 4C.)

With regard to claims 6, 15, 20, 26, 28, Hasebe et al. further teaches the housing including a printing beam exit member through which the printing beam exits the housing, and an aperture limiting the area (target area) within which the laser is able to print and the product moves past the aperture (beam outlet directed towards the object) (col. 10, lines 7-10.)

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 34 and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hasebe et al. in view of Spratte et al. (U.S. 5,175,425.)

Hasebe et al. discloses all the basic limitations of the claimed invention except for the density of the pixels being changed to construct the code.

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However, Spratte et al. discloses a process for marking semiconductor surfaces with a bar code that allows a high character density with a very small character height with reliability by controlling the laser output and the scanning speed.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the device of Hasebe et al. with the aforementioned teaching of Spratte et al. for the purpose of providing a high resolution code on the surface of the object to be marked.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hai C Pham whose telephone number is (703) 308-1281. The examiner can normally be reached on T-F (6:30-5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John E. Barlow can be reached on (703) 308-3126. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-3431 for regular communications and (703) 305-3431 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.



**HAI PHAM
PRIMARY EXAMINER**

February 9, 2002